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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/831,213 | 05/03/2001 | Mauri Salmisuo | MED 2 1233 | 2635 |

7590

04/11/2003

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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

HC

| | | | |
|------------------------------|---------------------------------------|--|--|
| Office Action Summary | Application No. 09/831,213 | Applicant(s) SALMISUO, MAURI | |
| | Examiner Virginia Manoharan | Art Unit 1764 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 6 and 8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claim maintaining the water vapor separate from the separated gases to prevent dilution of the water vapor with the separated gas in claim 6 "is nowhere in the specification.

There are no means and process steps disclosed or provided such that the above maintaining step is carried-out. If support can be pointed-out, at least the specification is objected to as failing to provide proper antecedent basis because the above subject matter is not positively recited in the specification.

The same rejection or objection holds true for the claimed "removal of the atmospheric gases separated from the water droplet during spraying before the water droplets enter the evaporating channels such that the product vapor has a low concentration of atmospheric gases than the water" in claim 8.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1, 2, 4, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over El-Allawy or Blangetti et al '998.

The above references are applied for the same combined reasons set forth at pages 3-4 of the previous Office action.

Claims 3, 5-7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohmann et al or Ryham.

Hohmann et al or Ryham is applied for the same reason as set forth at page 4 of the previous office action.

Applicant's arguments filed January 16, 2003 have been fully considered but they are not persuasive.

Applicant's argument such as: in Blangetti, "The spray device 24 is not situated at and does not spray the falling film tube inlets.... Rather, the spray device is disposed above a packed column 23" is not considered well-taken.

However, Blangetti suggests in col. 6, lines 15-17, that the substitution of the packed column in Fig. 2 by a falling film deaerator would also be a variant according to the invention.

Furthermore, Hohmann or Ryham is not applied for reasons as argued, i.e., "removing dissolved gases from the liquid.". Hohmann or Ryham was cited to show that the "...trough having a perforated bottom and lying above said tubes or channel arrangement is not an unobvious subject matter nor is it evidence of criticality in the art.

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Moreover, applicant's argument that "...El-Allawy is not directed to falling film evaporators, does not recognize the dissolved atmospheric gas problem, and provides no solution to this problem..... El-Allawy is not analogous prior art" is not persuasive of patentability.

However, El-Allawy's disclosures at col. 3, lines 25-28 of "the waters in the fine stream are distributed evenly as a thin film on the outside of the evaporation pipe of heat exchanger 16 where they are heated to form vapors"; and at col. 5, line 3,7 of a "spray film evaporator" would at least be suggestives of the above argued falling film evaporator or evaporation since they fall within the generic film type evaporator or evaporation.

Contrary to applicant's assertion, the fact that El-Allawy provides a degasser in its system, and provides for the removal of volatile components including oxygen and gaseous hydrocarbons materials in its system would presuppose that El-Allawy recognizes the problems posed by these materials. See e.g., col. 3, lines 8-16.

Thus, in the absence of anything which may be "new" or unexpected result", a prima facie case of obviousness has been established by the art and has not been rebutted.

Unexpected results must be established by factual evidence. Mere arguments or conclusory statements in the specification, appellants' amendments, or the Brief do not suffice. IN re Lindner, 457 F. 2d 506, 508, 173 USPQ 356, 358 (CCPA 1972). In re Wood, 582, F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is 308-3844. The examiner can normally be reached on Tuesday-Friday from 7:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola, can be reached on (703) 308-6824. The fax phone number for the organization where this application or proceeding is assigned is 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0665.

VManoharan:evh

4/1/03

Glen Caldarola

✓ 1764
4/10/03